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Confronting Environmental Racism

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Racism systematically constructs inequities by conferring advantages upon one racial/ethnic group at the expense of others. Power and privilege are distributed unevenly across space and time—as are the characteristics of the human environment—enabling racist structures and institutions to influence the environments in which people live, play, and work. Environmental racism is a critically important component of this broader system of oppression.

Environmental racism impacts individual communities of color in several ways. Over many decades, the discriminatory policies and practices that constitute environmental racism have disproportionately burdened communities of color, specifically Black Americans, American Indians/Alaska Natives (AIs/ANs), Asian Americans and Pacific Islanders, and Hispanic (sometimes called Latinx) populations. Frequently, these communities are located next to pollution sources such as major roadways, toxic waste sites, landfills, and chemical plants. Environmental racism has also concentrated disadvantaged populations in substandard housing, where hazardous exposures are much more likely. Manifestations of environmental racism have been documented in several other exposure situations. Often communities of color face cumulative health impacts from multiple co-occurring exposures.

To understand environmental racism is to understand, in part, the inequity that drives health disparities in communities of color. Notwithstanding substantial within- and between-group heterogeneity, many communities of color face higher rates of infant mortality as well as death from diseases such as type 2 diabetes, heart disease, certain cancers, homicide, and human immunodeficiency virus, compared with White counterparts (National Partnership for Action to End Health Disparities 2011). Black Americans and AI/AN people are also more likely to die younger overall (Shiels et al. 2017). Yet these populations (and other racial/ethnic groups) tend to be underrepresented in studies of many of the chronic diseases that affect them disproportionately (Oh et al. 2015).

What We Are Publishing

In the summer of 2020, *Environmental Health Perspectives* (*EHP*) curated a collection of articles that represent a variety of exposures and health outcomes relevant to environmental racism, specifically as it pertains to Black Americans. We are updating this collection with several recently published articles that shed new light on this topic.

Kenneth Olden's eponymous lecture highlighted the many social, economic, and health consequences of ever-increasing income inequality (Olden 2021). His call for a unified struggle of working-class people of all races and ethnicities is reminiscent of the position of many Civil Rights leaders in the 1960s. Olden, former director of the National Institute of Environmental Health Sciences, strongly believes that only government action can help remedy income inequality. This belief is aligned with many calls for structural change (Bassett and Galea 2020; Bidadanure 2019) as the antidote needed to begin moving toward racial equity.

In a recent study, Nardone et al. (2021) evaluated the association between historically redlined communities and current day access to greenspace as measured by Normalized Difference Vegetation Index (NDVI) values. Redlined communities are those that were designated in the 1930s as "hazardous" prospects for federal mortgage lending owing to their worse housing quality, industrial exposures, and low-income, ethnically diverse makeup (Nelson et al. 2021). Accounting for 1940 neighborhood characteristics, Nardone et al. (2021) found that redlined communities had lower NDVI values in 2010, suggesting that the legacy of racist policies continues to drive environmental inequality. While hardly surprising to see these persistent impacts, the paper provides concrete evidence of an environmental effect of redlining. This study has important implications for other differentially distributed environmental hazards given that future research could tie environmental injustice and health disparities more closely to our nation's history of systemic racism and discrimination.

Nwanaji-Enwerem et al. (2021) applied the exposome concept to environmental aging biomarkers. They called for the incorporation of social and other contextual factors in the development of environmental aging biomarkers that reflect the unique stressors faced by individuals subjected to racism. This effort must be supported with a renewed focus on recruiting and retaining diverse study populations and researchers. The use of community-based participatory research by environmental health researchers is one way to build trust and create equitable, beneficial partnerships that improve the recruitment and retention of diverse populations. The authors also called for journals and editors to serve as an additional safeguard against the inappropriate use and interpretation of race in studies, an idea that the editors of *EHP* fully support.

The use and interpretation of race in studies is explored further in a commentary by Payne-Sturges et al. (2021). These researchers addressed specific actions that environmental health scientists can take to move their disciplines toward an anti-racist future. These involve not ascribing racial differences to biological differences, a deeper understanding of the role of racism in environmental health disparities research, developing new measures of racism for the environmental health sciences, considering structural racism as a factor in risk assessment, and developing guidelines for discussions of race and ethnicity in environmental health science reporting.

Finally, a recent *EHP* News article (Nicole 2021) discusses one of the heightened risks imposed by environmental racism: the increased risk of fenceline communities experiencing a so-called natural hazard–triggered technological disaster (natech) event. These events occur when a natural hazard such as a hurricane or earthquake causes an infrastructural failure such as a

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chemical spill or nuclear reactor meltdown. Few, if any, guidelines exist to address community health during these compound disasters.

New Policies for Authors and Reviewers

As a journal, *EHP* is taking steps to ensure that scholarship on health disparities meets the most rigorous expectations. As has been suggested by Boyd et al. (2020), we are now requiring investigators to define race in their studies (i.e., to report how and by whom "race" or "ethnicity" was assigned to participants and why it was included as an analytic variable). Because race is a social construct, investigators should not assume genetic or biological explanations for racial health disparities. As stated by Nwanaji-Enwerem et al. (2021), "the notions of genetic ancestry and the social construct of race must be intentionally and explicitly disentangled." Because many environmental health studies are interested in genetic influences on health, researchers should take care not to conflate race or ethnicity with genetic ancestry in their studies (Oni-Orisan 2021).

When considering racial or ethnic differences in health or exposure risks, authors must also describe the potential role of racism in the questions under study. That is, they should explore how racism underpins social, economic, and environmental disparities that influence health. We expect authors to be thoughtful in considering these aspects rather than assigning health effects to race or even specific measurable impacts of racism such as segregation. To use segregation as an example, the persistence of segregated communities reflects the effects of longstanding structural racism and the unequal distribution of resources that can be associated with health impacts. Some of the health effects of segregation can be understood by known pathways, such as economic status, whereas some of its apparent impacts may work through other, unmeasured mechanisms that accompany segregation. As shown by Nardone et al. (2021), the consequences of segregation manifest in differential exposure to environmental factors like greenspace.

In addition, we urge investigators to disaggregate race and ethnicity data to the fullest extent possible in health disparities research. Inappropriately collapsing racial/ethnic groups masks important variation in environmental exposures and health, and it results in the erasure of certain subpopulations in data collection, analysis, and reporting (Urban Indian Health Institute 2021). Importantly, the absence of data does not imply that disparities in exposures and health do not exist.

Reviewers are also being provided guidance on the importance of critically examining studies that provide biological explanations for racial health disparities. *EHP* is updating its author guidelines to emphasize the importance of interrogating racial explanations for health and disease. In addition, *EHP* has renewed its commitment to expanding opportunities for a diverse slate of reviewers and editors to gain experience in scholarly publishing, experiences that provide privileges historically enjoyed primarily by White men. Editorial experience and roles can directly and indirectly benefit the careers of scientists, thereby underscoring the important role journals can play in promoting a diverse scientific workforce. Representatives from underrepresented groups bring rich substantive knowledge and insight to all topics, and essential voices on environmental racism and health disparities.

From a style perspective, we have also adopted the uppercase B for the demographic term "Black." We agree with the sentiment expressed by *New York Times* editors Dean Baquet and Phil Corbett when they wrote, "We believe this style best conveys elements of shared history and identity, and reflects our goal to be respectful of all the people and communities we cover"—and that, as editor Marc Lacey further stated, it is the difference between a color and a culture (Coleman 2020). We encourage authors to use "Black" (and "White") while recognizing that, for some populations, "African American" will continue to be the more appropriate term.

As we continue this period of reckoning, it is timely to reflect on our own ability, as environmental health scientists and as a scholarly journal, to shine a light on racism as not just a social determinant of health but a public health crisis. To this end, *EHP* invites authors to submit papers that explicitly address environmental racism, including not just associated exposures and outcomes, but also potential interventions and mitigation activities.

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